Table 1: RTM Requirement Verification Method Changes

RBR_id	req_key	req_category	segment	req_type	s_verif_method	s_verif_stat	a_verif_method	a_verif_stat	CCR	text	interpretation text	clarification
DADS0425#A	6850	mission essential	SDPS	functional	test	un-verified	~~analysis~~ Inspection	un-verified	96-0921A	Archive and backup media at each DADS shall have a rated shelf life of at least 10 years as determined by the National Archives and Records Administration (NARA), National Institute for Standards and Technology (NIST), NASA, or a professional or industry organization such as ANSI, the Society of		

										Motion Picture and Television Engineers (SMPTE) or the National Association of Broadcasters (NAB).		
DADS1340 #A	7715	mission essential	SDPS	functional	test	un-verified	~~test~~ demo	un-verified	96-1002	Each DADS shall use tools to analyze system performance.		
DADS1640 #A	7135	mission essential	SDPS	performance | evolvable	demo	un-verified	~~analysis~~ test	un-verified	96-0947A	The DADS shall support the number of files derivable from Appendix C, with the ability to expand to match growth.	A: Number of files for Release A archives are derived from the capability to accommodate the Release A supported missions until the operational turnover of Release B (Through 3 quarter of 98). The	

											number of files at GSFC is sized to support the TSDIS data (along with required ancillary) and V0 migration data while LaRC archive is sized to support the CERES (TRMM) data (along with required ancillary) and V0 migration data. Total accumulated number of files for Release A, derived from the August, 1995 Technical Baseline (Release A procurement baseline) and TSDIS ICD, is 815K @ GSFC and	

											70K @ LaRC. No Release A archive capacity is provided at EDC. The number of V0 migration files was derived by assuming an average size of 50 MB per file.	
DADS1710 #A	6583	mission fulfillment	SDPS	functional	demo	un-verified	~~analysis~~ demo	un-verified	96-0876B	The DADS shall comply with evolving guidelines and standards in such areas as file storage, storage management, and backup where appropriate.		
DADS2910 #A	7159	mission essential	SDPS	functional | evolvable	demo	un-verified	~~demo~~ inspection	un-verified	96-0947A	Archival storage at each DADS shall be field-expandable.		

EOSD0700 #A	7523	mission essential	SDPS | CSMS	proced ural	inspe ction	un-verified	~~inspectio n~~ demo	un-verified	96-1010	Each ECS element shall provide the following, to be used in the revalidation of its functional performance: a. Benchmark test(s) b. Standard test data sets.	A: Bench mark tests shall be accessible via the Configuration Management Services. A: Standard test data sets shall be defined for unit, component, subsystem, system, internal/exter nal interface, fault isolation, and end to end test. Simulated or actual data are captured and characterized as test data sets. Standard test data shall be on media accessible via Configuration Management	

											Services. Acceptance Test Procedures (411/VE1) will also address compliance.	
EOSD0740 #A	7558	mission fulfillment	FOS | SDPS | CSMS	functional	test	un-verified	~~test~~ analysis	un-verified	96-0957A	Each ECS element shall provide a set of real or simulated functional capabilities for use in the following types of test: a. Subsystem (components of an ECS element) b. Element (fully integrated element) c. ECS System (Integration of ECS elements)		
EOSD0750 #A	7107	mission fulfillment	FOS | SDPS | CSMS	functional	demo	un-verified	~~demo~~ analysis	un-verified	96-0956A	Each ECS element shall		

										provide a set of real or simulated functions which interfaces with both its ECS internal and external entities for use in the following types of test: a. Subsystem (components of an ECS element) b. Element (fully integrated element) c. EOSDIS System (Integration of EOSDIS elements)		
EOSD3490 #A	7360	mission fulfillment	FOS | SDPS | CSMS	RMA	demo	un-verified	~~demo~~ inspection	un-verified	96-0920B	Reliability statistics for ECS shall be collected and monitored using the Mean Time	The FOS/EOC requirement is met through the use of CSMS services. A: Applicable DAACs.	The initial Requirement compliance shall be verified by comparing (analyzing

										Between Maintenance (MTBM) for each component and operational capability.		) the data collected for the ECS against the predicted MTBM documented in DID 515/PA1. After RRR the MTBM will be verified by an inspection and analysis of the actual operations data collected.
EOSD3620 #A	6463	mission fulfillment	CSMS	RMA	test	un-verified	~~analysis~~ inspection	un-verified		ECS shall predict and periodically assess maintainability by measuring the actual MDT and comparing to	M&O responsibility A: Applicable DAACs	

										the required MDT.		
EOSD3910 #A	5122	mission critical	SDPS	RMA	test	un-verified	~~test~~ inspection	un-verified		The switchover time from the primary science data receipt capability to a backup capability shall be 15 minutes or less (10 minutes design goal).	A: SDPF (L0 data - no product data)	
EOSD4010 #A	5147	mission essential	SDPS	RMA	analysis	un-verified	~~analysis~~ inspection	un-verified		Each computer providing product generation shall have an operational availability of 0.95 at a minimum (.9995 design goal).	A: TRMM	
EOSD4036 #A	5168	mission critical	CSMS	RMA	analysis	un-verified	~~analysis~~ inspection	un-verified		The operational availability of individual		

										ESN segments shall be consistent with the specified operational availability of the supported ECS functions.		
EOSD4100 #A	7834	mission essential	FOS | SDPS | CSMS	RMA	test	un-verified	~~demo~~ inspection	un-verified	96-1078A	The ECS segments, elements, and components shall include the on-line (operational mode) and off-line (test mode) fault detection and isolation capabilities required to achieve the specified operational availability requirements.		
EOSD5000 #A	7420	mission fulfillment	SDPS | CSMS	evolvable	analysis	un-verified	~~test~~ analysis	un-verified	96-0920B	ECS shall enable the addition of		The ECS system allows the ECS client

										other data providers, e.g. DAACs, SCFs, ADCs, ODCs, which may: - provide heterogeneous services, i.e. services in support of EOS which may be less than or different than ECS services. - be connected with varying topologies - have variable levels of reliability or operational availability.		to search, browse and order data from NESDIS SSA. The Advertising Service enables the advertisements for the ECS and non-ECS data and services.
ESN-0815#A	7634	mission essential	CSMS	functional	analysis	un-verified	~~analysis~~ demo	un-verified	96-1007	Network simulation and traffic modeling capability shall be		

										provided to troubleshoot network problems and to use in network planning.		
ESN-1350#A	5243	mission critical	CSMS	security	analysis	un-verified	~~analysis~~ inspection	un-verified		The ESN LANs shall provide physical devices and the corresponding medium access control (MAC) protocol compatible with ISO and ANSI standards.		
IMS-0290#A	7631	mission fulfillment	SDPS	functional	analysis	un-verified	~~analysis~~ demo	un-verified	96-1017A	IMS internal data base management queries shall be expressed in a standard query language.		
IMS-1790#A	6814	mission critical	SDPS	performance	test	un-verified	~~demo~~ analysis	un-verified	96-0915A	The IMS shall provide, based upon		Number of inventory entries for

										the data model defined in Appendix C, sufficient storage for, at a minimum: a. Directory metadata b. Guide (documentation/reference material) metadata c. Inventory metadata d. System space, LSM data, and data base system overhead e. Metadata staging area f. Spacecraft housekeeping and ancillary data metadata g. Science processing library software metadata h. Summary data statistics i. User		Release A are derived from the capability to accommodate the Release A supported missions until the operational turnover of Release B (Through 3 quarter of 98). The number inventory entries at GSFC is sized to support the TSDIS data (along with required ancillary) and V0 migration data while

										workspace		LaRC archive is sized to support the CERES (TRMM) data (along with required ancillary) and V0 migration data. Total accumulated number of inventory entries for Release A, derived from the August, 1995 Technical Baseline (Release A procurement baseline), is 815K @ GSFC

												and 70K @ LaRC. No Release A archive capacity is provided at EDC. The number of V0 migration inventory entries was derived by assuming an average size of 50 MB per file. Number of individual products estimated @ LaRC at Release A is 54, 17 for V0 migration and 37 for CERES, and @ GSFC is

												40, 6 for V0 migration and 34 for TSDIS. These estimates include ancillary data products.
NSI-0010#A	6625	mission essential	CSMS	procedural	inspection	un-verified	~~inspection~~ demo	un-verified	96-0909A	NSI, responsible for EOSDIS "Mission Success" network services, shall provide network connectivity to the following ECS facilities: a._ECS at the GSFC DAAC, Goddard Space Flight Center (GSFC), Greenbelt, Maryland c._System	Release A is for GSFC DAAC, SMC, and LaRC DAAC only.	

										Monitoring and Coordination facility (SMC), Goddard Space Flight Center (GSFC), Greenbelt, Maryland f._ECS at the LaRC DAAC, Langley Research Center (LaRC), Hampton, Virginia		
PGS-1400#A	6650	mission fulfillment	SDPS	functional	test	un-verified	~~test~~ inspection	un-verified	96-0895A	The PGS shall be developed with configuration-controlled application programming interfaces (APIs) that will be capable of supporting development		

										and integration of new algorithms developed at each DAAC to support DAAC value-added production.		
SMC-2510#A	7824	mission essential	CSMS	functional	analysis	un-verified	~~analysis~~ test	un-verified	96-1078A	The SMC shall provide at a minimum system-wide configuration management for the operational hardware, scientific and system software, and the SMC toolkit contained within ECS. The management system shall support the migration of hardware and software upgrades into	A: SMC will have system wide configuration management and a consolidated ECS wide view. (Full capability)	

										the operational environment.		
SMC-2520#A	6980	mission essential	CSMS	functional	analysis	un-verified	~~analysis~~ demo	un-verified	96-0932A	The SMC shall evaluate received system enhancement requests to determine, at a minimum: a. Technical feasibility b. Implementation schedule c. Expected costs d. Existing system-wide hardware and software impacts	A: Performed by staff using various CM and other tools	
SMC-2530#A	6981	mission essential	CSMS	functional	analysis	un-verified	~~analysis~~ demo	un-verified	96-0932A	Upon approval of a system enhancement, the SMC shall provide overall management of the implementatio	A: Performed by staff using various CM and other tools.	

										n of the approved changes to the hardware and system software.		
SMC-2535#A	6982	mission essential	CSMS	functional	analysis	un-verified	~~analysis~~ demo	un-verified	96-0932A	Upon approval of an enhancement, the LSM shall facilitate the implementation of the approved changes within an elements hardware and software.	A: Partial compliance - Performed by M&O staff using vaious CM and other tools	
SMC-2540#A	6983	mission essential	CSMS	functional	analysis	un-verified	~~analysis~~ demo	un-verified	96-0932A	Upon approval to include a fully tested enhancement to the algorithms, the SMC shall provide overall management of the implementatio	A: Performed by staff using various CM and other tools	

										n of the approved and modified software into the operational environment.		
SMC-3330#A	6300	mission essential	CSMS	functional	demo	un-verified	~~demo~~ test	un-verified		The SMC shall compare and evaluate system-wide, site, and element actual schedule performance against planned schedule performance.	A: Performed by M&O staff using flow up of available information from site MSS. System monitoring is federated across the DAACs & SMC.	
SMC-3385#A	6999	mission critical	CSMS	functional	analysis	un-verified	~~analysis~~ test	un-verified	96-0932A	The LSM shall evaluate system performance against the ESDIS project established performance criteria.		
SMC-3410#A	7004	mission essential	CSMS	functional	analysis	un-verified	~~analysis~~ test	un-verified	96-0932A	The SMC shall perform short and	A: Performed by M&O staff using various	

										long-term trend analysis of system, site, and element performance to include, at a minimum: a. Operational status b. Performance of a particular resource c. Maintenance activities (e.g., number of repairs per item)	performance management tools	